

**Abstract:**

The present invention relates to a one-pot water-resistant polyvinyl acetate copolymer aqueous emulsion and its preparation. The one-pot water-resistant polyvinyl acetate copolymer aqueous emulsion of the present invention is prepared from emulsion co-polymerization of vinyl acetate monomer and an unsaturated functional silicon-containing monomer at atmospheric pressure to prepare a one-pot self-cross-linkable emulsion.

The one-pot water-resistant polyvinyl acetate copolymer aqueous emulsion of the present invention will be dried and self cross-linked at ambient temperature without heating or using cross-linking agent to render the emulsion a water resistance. Thereby, the one-pot water-resistant polyvinyl acetate copolymer aqueous emulsion of the present invention possesses an improved operation.